

DECLARATION
AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

THERAPEUTIC AND DIAGNOSTIC METHODS AND COMPOSITIONS BASED ON NOTCH PROTEINS AND NUCLEIC ACIDS

the specification of which:

is attached hereto
 was filed in the United States on June 25, 1993 as Application Serial No. 08/083,590 (for declaration not accompanying application)
 with amendment(s) filed on _____ (if applicable)

was filed as PCT international application Serial No. _____ on _____ and was amended under PCT Article 19 on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119/§172 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED PRIOR TO THE FILING DATE OF THE APPLICATION			
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. 119/172
			YES <input type="checkbox"/> NO <input type="checkbox"/>
			YES <input type="checkbox"/> NO <input type="checkbox"/>
			YES <input type="checkbox"/> NO <input type="checkbox"/>
			YES <input type="checkbox"/> NO <input type="checkbox"/>

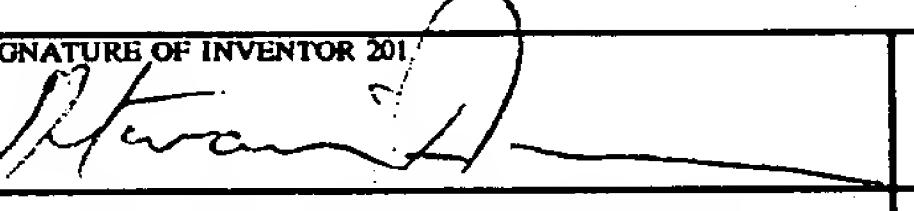
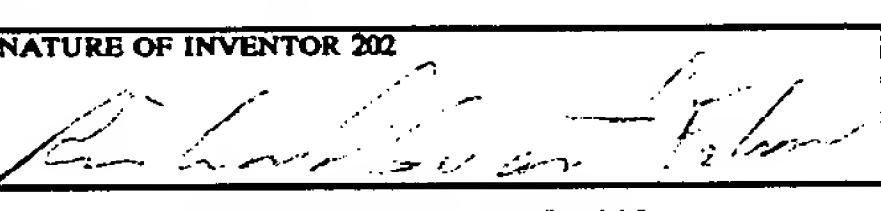
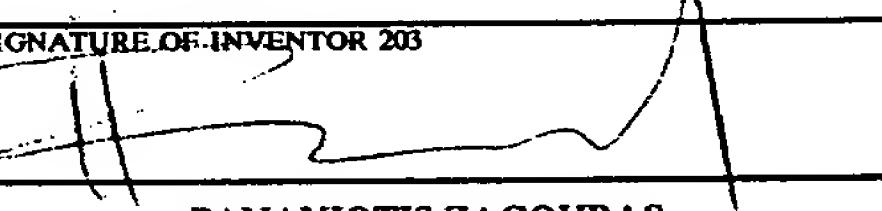
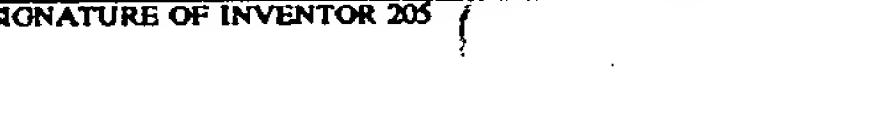
I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NO.	FILING DATE	STATUS		
		PATENTED	PENDING	ABANDONED
07/955,012	September 30, 1992		X	
07/879,038	April 30, 1992		X	

POWER OF ATTORNEY: As a named inventor, I hereby appoint S. Leslie Misrock (Reg. No. 18872), Harry C. Jones, III (Reg. No. 20280), Berj A. Terzian (Reg. No. 20060), Gerald J. Flintoft (Reg. No. 20823), David Weild, III (Reg. No. 21094), Jonathan A. Marshall (Reg. No. 24614), Barry D. Rein (Reg. No. 22411), Stanton T. Lawrence, III (Reg. No. 25736), Isaac Jarkovsky (Reg. No. 22713), Joseph V. Colaianni (Reg. No. 20019), Charles E. McKenney (Reg. No. 22795), Philip T. Shannon (Reg. No. 24278), Francis E. Morris (Reg. No. 24615), Charles E. Miller (Reg. No. 24576), Gidon D. Stern (Reg. No. 27469), John J. Lauter, Jr. (Reg. No. 27814), Brian M. Poissant (Reg. No. 28462), Brian D. Coggio (Reg. No. 27624), Rory J. Radding (Reg. No. 28749), Stephen J. Harbulak (Reg. No. 29166), Donald J. Goodell (Reg. No. 19766), James N. Palik (Reg. No. 25510), Thomas E. Friebel (Reg. No. 29258), Laura A. Coruzzi (Reg. No. 30742), Jennifer Gordon (Reg. No. 30753), Jon R. Stark (Reg. No. 30111), Allan A. Fanucci (Reg. No. 30256), Geraldine F. Baldwin (Reg. No. 31232), and Victor N. Balancia (Reg. No. 31231), whose address is Pennie & Edmonds, 1155 Avenue of the Americas, New York, New York 10036, and each of them, my attorneys, to prosecute this application, and to transact all business in the Patent and Trademark Office connected therewith.

SEND CORRESPONDENCE TO: PENNIE & EDMONDS 1155 AVENUE OF THE AMERICAS NEW YORK, N.Y. 10036-2711			DIRECT TELEPHONE CALLS TO: PENNIE & EDMONDS (212) 790-9090	
2 0 1	FULL NAME OF INVENTOR	LAST NAME ARTAVANIS-TSAKONAS	FIRST NAME SPYRIDON	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY HAMDEN	STATE OR FOREIGN COUNTRY CONNECTICUT	COUNTRY OF CITIZENSHIP UNITED STATES
	POST OFFICE ADDRESS	POST OFFICE ADDRESS 192 RIDGEWOOD AVENUE	CITY HAMDEN	STATE OR COUNTRY CONNECTICUT
2 0 2	FULL NAME OF INVENTOR	LAST NAME FEHON	FIRST NAME RICHARD	MIDDLE NAME GRANT
	RESIDENCE & CITIZENSHIP	CITY DURHAM	STATE OR FOREIGN COUNTRY NORTH CAROLINA	COUNTRY OF CITIZENSHIP UNITED STATES
	POST OFFICE ADDRESS	POST OFFICE ADDRESS 2714 DOGWOOD ROAD	CITY DURHAM	STATE OR COUNTRY NORTH CAROLINA
2 0 3	FULL NAME OF INVENTOR	LAST NAME ZAGOURAS	FIRST NAME PANAYIOTIS	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY NEW HAVEN	STATE OR FOREIGN COUNTRY CONNECTICUT	COUNTRY OF CITIZENSHIP GREECE
	POST OFFICE ADDRESS	POST OFFICE ADDRESS 595 ORANGE STREET	CITY NEW HAVEN	STATE OR COUNTRY CONNECTICUT
2 0 4	FULL NAME OF INVENTOR	LAST NAME BLAUMUELLER	FIRST NAME CHRISTINE	MIDDLE NAME MARIE
	RESIDENCE & CITIZENSHIP	CITY NEW HAVEN	STATE OR FOREIGN COUNTRY CONNECTICUT	COUNTRY OF CITIZENSHIP UNITED STATES
	POST OFFICE ADDRESS	POST OFFICE ADDRESS 28 COTTAGE STREET	CITY NEW HAVEN	STATE OR COUNTRY CONNECTICUT
2 0 5	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY
2 0 6	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE OR COUNTRY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201 	SIGNATURE OF INVENTOR 202 	SIGNATURE OF INVENTOR 203 
SPYRIDON ARTAVANIS-TSAKONAS DATE <u>20 July</u> , 1993	RICHARD GRANT FEHON DATE <u>27 July</u> , 1993	PANAYIOTIS ZAGOURAS DATE <u>7/20</u> , 1993
SIGNATURE OF INVENTOR 204  CHRISTINE MARIE BLAUMUELLER DATE <u>July 20</u> , 1993	SIGNATURE OF INVENTOR 205 	SIGNATURE OF INVENTOR 206 

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of : Attn: Application Division,
Artavanis-Tsakonas et al. Special Handling Unit
:
Serial No.: 08/083,590 : Group Art Unit:
Filed: June 25, 1993 : Examiner:
For: THERAPEUTIC AND DIAGNOSTIC :
METHODS AND COMPOSITIONS :
BASED ON NOTCH PROTEINS AND :
NUCLEIC ACIDS :
Attorney Docket No.: 7326-015 : Pennie & Edmonds
: 1155 Avenue of the Americas
: New York, New York 10036

**TRANSMITTAL OF DECLARATION AFTER FILING
DATE PURSUANT TO 37 C.F.R. § 1.53(d)**

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

SIR:

Applicants submit herewith a Declaration and Power of Attorney for the application executed by inventors Spyridon Artavanis-Tsakonas, Panayiotis Zagouras and Christine Marie Blaumueller on July 20, 1993, and inventor Richard Grant Fehon on July 27, 1993.

In addition, Applicants submit herewith an Assignment of the Application to YALE UNIVERSITY. Said Assignee qualifies as a small entity under 37 C.F.R. 1.9(f) and 1.27(d). A Verified Statement Claiming Small Entity Status [37 C.F.R. 1.9(f) and 1.27(d)] is submitted concurrently herewith.

EXPRESS MAIL CERTIFICATION

Express Mail label No. TB 389-222 812 US

Date of Deposit August 13, 1993

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

ISMAEL MALDONADO
(Type or print name of person mailing paper or fee)
Ismael Maldonado
(Signature of person mailing paper or fee)

PENY-201879.1

The fee required to be filed with the accompanying Declaration under 37 C.F.R. § 1.16(e) has been estimated to be \$65.00 (small entity). Please charge the required fee to Pennie & Edmonds Deposit Account No. 16-1150. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

PENNIE & EDMONDS
Attorneys for Applicants

Date: August 13, 1993
(212) 790-9090

S. Leslie Misrock 18,872
S. Leslie Misrock (Reg. No.)

By Adriane Antler
Reg. No. 32,605

ASSIGNMENT

WHEREAS, WE, SPYRIDON ARTAVANIS-TSAKONAS, RICHARD GRANT FEHON, PANAYIOTIS ZAGOURAS and CHRISTINE MARIE BLAUMUELLER (herein called "ASSIGNORS"); citizens of the United States, the United States, Greece, and the United States, respectively; respectively residing at 192 Ridgewood Avenue, Hamden, Connecticut 06517, 2714 Dogwood Road, Durham, North Carolina 27705, 595 Orange Street, New Haven, Connecticut 06511, and 28 Cottage Street, New Haven, Connecticut 06511; are the inventors of the invention in THERAPEUTIC AND DIAGNOSTIC METHODS AND COMPOSITIONS BASED ON NOTCH PROTEINS AND NUCLEIC ACIDS for which we have executed an application for a Patent of the United States

which is identified by Pennie & Edmonds docket no. 7326-015
 which was filed on June 25, 1993, Serial No. 08/083,590

and WHEREAS, YALE UNIVERSITY, a not-for-profit corporation organized and existing under the law of the State of Connecticut, having an address at 451 College Street, New Haven, Connecticut 06520 (herein called "ASSIGNEE"), is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

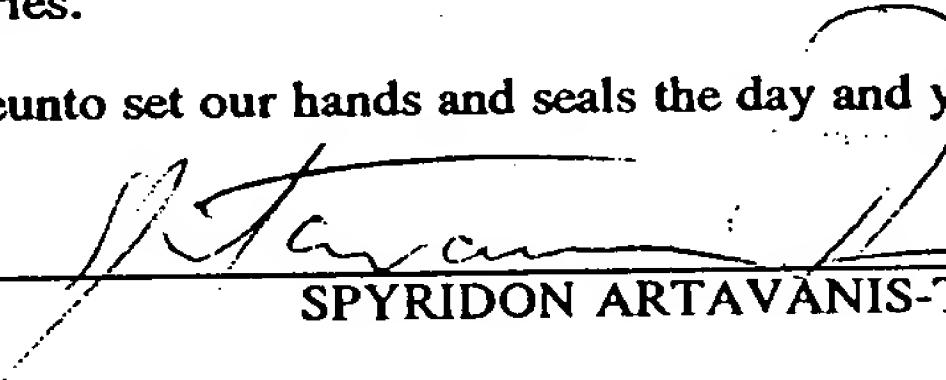
AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 20 July, 1993


SPYRIDON ARTAVANIS-TSAKONAS

L.S.

State of CONNECTICUT)

SS.:

County of NEW HAVEN)

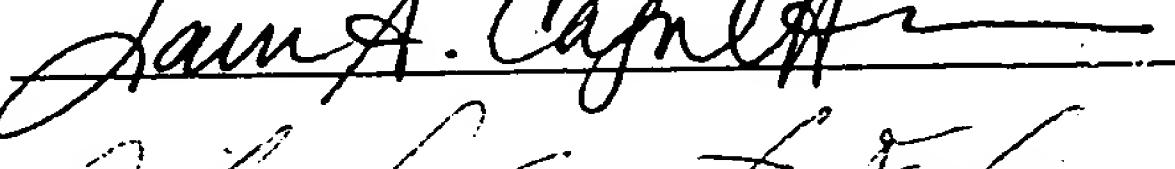
On this 20th day of JULY, 1993, before me, a Notary Public in and for the State and County aforesaid, personally appeared SPYRIDON ARTAVANIS-TSAKONAS, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

LAURIE A. CAGNETTA
NOTARY PUBLIC

MY COMMISSION EXPIRES MARCH 31, 1994


Notary Public.

Date July 27th, 1993


RICHARD GRANT FEHON

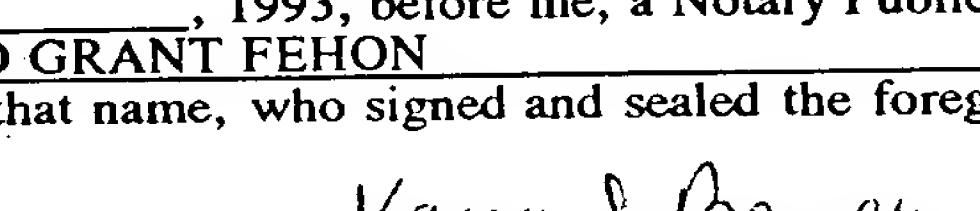
L.S.

State of North Carolina

SS.:

County of Durham)

On this 27th day of July, 1993, before me, a Notary Public in and for the State and County aforesaid, personally appeared RICHARD GRANT FEHON, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.


Karen S. Bowen

My commission expires: 8/21/95 Notary Public.

Date 7/20/93

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L.S.

PANAYIOTIS ZAGOURAS

State of CONNECTICUT
County of NEW HAVEN) SS.:

On this 20th day of July, 1993, before me, a Notary Public in and for the State and County aforesaid, personally appeared PANAYIOTIS ZAGOURAS, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

LAURIE A. CAGNETTA

NOTARY PUBLIC

MY COMMISSION EXPIRES MARCH 31, 1994

Laurie A. Cagnetta

Notary Public.

Date July 20, 1993, 1993

Christine Marie Blaumueler
CHRISTINE MARIE BLAUMUELLER

L.S.

State of CONNECTICUT
County of NEW HAVEN) SS.:

On this 20th day of July, 1993, before me, a Notary Public in and for the State and County aforesaid, personally appeared CHRISTINE MARIE BLAUMUELLER, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and she acknowledged the same to be her free act and deed.

LAURIE A. CAGNETTA

NOTARY PUBLIC

MY COMMISSION EXPIRES MARCH 31, 1994

Laurie A. Cagnetta

Notary Public.

RECORDATION FORM COVER SHEET
PATENTS ONLYAttorney Docket Number
7326-015TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS
Box Assignments
Washington, DC 20231

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):
SPYRIDON ARTAVANIS-TSAKONAS, RICHARD GRANT
FEHON, PANAYIOTIS ZAGOURAS, and CHRISTINE
MARIE BLAUMUELLER

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other _____

Execution Date: Spyridon Artavanis-Tsakonas, Panayiotis
Zagouras, and Christine Marie Blaumueler on July 20, 1993;
Richard Grant Fehon on July 27, 1993

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) 08/083,590

B. Patent No.(s)

Additional numbers attached? Yes No5. Name and address of party to whom correspondence
concerning document should be mailed:PENNIE & EDMONDS
1155 Avenue of the Americas
New York, NY 10036

Attention: S. Leslie Misrock, Esq.

6. Number of applications
and patents involved: 17. Total fee (37 CFR 3.41): \$ 40.00
Please charge to the deposit account listed in Section 8.8. Deposit account number:
16-1150
(A copy of this page is attached)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the
original document.S. Leslie Misrock 18,872
Name of Person Signing Reg. No./s/ Leslie Misrock /s/ Reg. No. 32,605
SignatureAugust 13, 1993
Date

Total number of pages including cover sheet: 3

EXPRESS MAIL CERTIFICATION

"Express Mail" label No. TB 389 222 812 US Date of Deposit August 13, 1993
 I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the
 date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

ISMAEL MALDONADO
 (Type or print name of person mailing paper or fee)
 (Signature of person mailing paper or fee)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: Artavanis-Tsakonas et al.
 Patent of:

Serial No.: 08/083,590
 Patent No.:

Group Art Unit:

Filed: June 25, 1993
 Issued:

Examiner: To be assigned

For: **THERAPEUTIC AND DIAGNOSTIC
METHODS AND COMPOSITIONS
BASED ON NOTCH PROTEINS AND
NUCLEIC ACIDS**

Attorney Docket No.: 7326-015

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
[37 CFR 1.9(f) and 1.27(d)] - Nonprofit Organization

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of organization Yale University
Address of organization 451 College Street
New Haven, Connecticut 06520

Type of organization

University or other institution of higher education
 Tax exempt under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3))
 Nonprofit scientific or educational under statute of state of the United States of America
(Name of state _____)
(Citation of statute _____)
 Would qualify as tax exempt under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)) if located in the United States of America.
 Would qualify as nonprofit scientific or educational under statute of state of the United States of America if located in the United States of America
(Name of state _____)
(Citation of statute _____)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code with regard to the invention entitled **THERAPEUTIC AND DIAGNOSTIC METHODS AND COMPOSITIONS BASED ON NOTCH PROTEINS AND NUCLEIC ACIDS** by inventor(s) Spyridon Artavanis-Tsakonas et al., described in

